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10/593,609	09/21/2006	Hee-Kyung Lee	CU-5096 WWP	1692
26530 7590 07/29/2010 LADAS & PARRY LLP 224 SOUTH MICHIGAN AVENUE SUITE 1600 CHICAGO, IL 60604			EXAMINER CRUTCHFIELD, CHRISTOPHER M	
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/593,609

Applicant(s)

LEE ET AL.

Examiner

Christopher Crutchfield

Art Unit

2466

Period for Reply -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 12 May 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 17-64 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 17-64 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 21 September 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/GS/US)
- 4) ☐ Interview Summary (PTO-413)
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____
- Paper No(s)/Mail Date _____

DETAILED ACTION

Claim Rejections - 35 USC § 112

1. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

2. **Claims 17-64** are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

Claims 17, 28, 39, 48 and 57 all recite the use of "an instance metadata identifier (IMI) for identifying the content reference identifier". This is not described in the original specification in such a way as to reasonably convey to one skilled in the relevant art that the inventors, at the time the application was filed, had possession of the claimed invention. Therefore, claims 17, 28, 39, 48 and 57 are rejected under 35 USC 112, First Paragraph.

Claims 18-27, 40-47, 49-56 and 58-64 depend from claims 17, 28, 39, 48 and 57. Therefore, claims 18-27, 40-47, 49-56 and 58-64 are rejected under 35 USC 112, First Paragraph as incorporating the rejection of claims 17, 28, 39, 48 and 57 by dependency.

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claims 28-38 and 48-56 rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Regarding claims 28 and 48, the issue at hand is do the terms "generating unit" and "acquiring unit", as recited in lines 3 and 7, followed by functional language invoke 112, sixth paragraph? Because it is unclear if the claim intends to invoke 112, sixth paragraph, the claim is rejected under 35 USC 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which the applicant regards as the invention.

When an apparatus claim does not use the term "means for" it will be presumed to not invoke 112, 6th paragraph. *LG Electronics, Inc. v. Bizcom Electronics, Inc.*, 453 F.3d 1364, 1372, 79 USPQ2d 1443, 1449 (Fed. Cir. 2006). However, the presumption may be rebutted by a sufficient showing that there is "no structural context for determining the characteristics of the [claim element] other than to describe its function". *Ex Parte Rodriguez*, Appeal No. 2008-000693 (BPAI), 14 (Quoting *Welker Bearing Co. v. PHD, Inc.* 550 F.3d 1090, 1096, 89 USPQ2d, 1289, 1294 (Fed. Cir. 2008)). This is particularly true where the term provided is "simply a nonce word or a verbal construct that is not recognized as the name of structure and is simply a substitute for the term 'means for.'" *Id.* at 14; See also *Lighting World, Inc. v. Birchwood Lighting, Inc.*, 382 F.3d 1354, 72 USPQ2d 1344 (Fed. Cir. 2004).

The terms "generating unit" and "acquiring unit" as recited in claims 28 and 48 do not have an art-recognized structural meaning. Furthermore, the specification does not explicitly define the terms. Therefore, under the broadest reasonable interpretation, the terms "generating unit" and "acquiring unit" do not denote any particular structure and are merely "nonces"

followed by functional language. Since it is unclear if the terms "generating unit" and "acquiring unit" intend to invoke 35 USC 112, sixth paragraph, claims 28 and 48 are rejected as indefinite for failing to particularly point out and distinctly claim the subject matter which the applicant regards as the invention.

Regarding claims 29-38 and 49-56, the claims depend from claims 28 and 48.

Therefore, dependent claims 28 and 48 are rejected as incorporating the 35 USC 112, second paragraph, rejection by dependency.

Claim Rejections - 35 USC § 101

5. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

6. **Claims 17-27, 39-47 and 57-64** are rejected under 35 U.S.C. 101 as being drawn to non-statutory subject matter

Regarding claims 17 and 39 are rejected under 35 USC 101 because under the broadest reasonable interpretation they are directed to a theoretical or abstract idea.

In order to qualify as statutory subject matter a claim must fall within the purview of 35 USC 101, which provides for four statutory classes of patentable subject matter: processes, machines, manufactures, and compositions of matter. However, the laws of nature, physical phenomena and abstract ideas are not within the realm of patentable subject matter. *Diamond v. Chakrabarty*, 447 U. S. 303, 309 (1980). For example, in *Benson* the court considered that an algorithm to convert binary coded decimal into pure binary, although being a "process" under 35

USC 101, was nonetheless not patent-eligible subject matter, as it was drawn to an abstract idea. *Gottschalk v. Benson*, 409 U. S. 63, 70 (1972). Furthermore, with regards to process claims, the machine or transformation test, although not exclusive, provides an important "clue" to the patentability of process claims. *Bilski v. Kappos*, 561 US ____ (2010), Appeal No. 08-964, Slip Opinion Page 8.

In the present circumstance, claims 17 and 39 are directed to a "package providing method" and a "package consuming method". The methods are then further described as having "content reference identifiers" for "identifying components" and "instance metadata identifiers" for "identifying the content metadata identifiers". In effect, the claims are drawn to the idea of a metadata system that uses specific identifiers, to link, interrelate and describe the contents of media. The claims do not require the use of any particular machine to perform the package providing and consuming methods and do not transform any article from one state to another. Therefore, claims 17 and 39 are rejected under 35 USC 101 as being directed to a theoretical or abstract idea.

Claims 17-27 and 40-47 depend from claims 17 and 39. Therefore, claims 17-38 and 40-47 are rejected under 35 USC 101 as incorporating the rejection of claims 17 and 39 by dependency.

Claim 57 is rejected under 35 U.S.C. 101 because under the broadest reasonable interpretation, it is directed to non-functional descriptive material or, in the alternative, software per se, neither of which are a process, machine manufacture or composition of matter and therefore claim 57 does not constitute statutory subject matter.

In order to qualify as statutory subject matter, claimed subject matter must fall within one of the four statutory categories of 35 USC 101. In *re Nuijten*, 500 F3d 1346, 1354 84 USPQ2d 1495, 1500 (2007) ("Claimed subject matter must be within at least one of four categories

enumerated in 35 U.S.C. §101 in order to be patentable, but once that requirement is satisfied, court need not be overly concerned about which of those categories claimed subject matter falls into; however, four categories in Section 101 together describe exclusive reach of patentable subject matter, and if claim covers material not found in any of those four categories, then claim falls outside plainly expressed scope of Section 101 even if subject matter is otherwise new and useful.”). Software per se is not a process, manufacture or composition of matter. It also lacks any physical manifestation it cannot comprise a machine. See *Id at 1354*. See also *Ex Parte Cherian*, Appeal No. 2008-004157, BPAI, (Non-Precedential) (2009); *Ex Parte Magid*, Appeal No. 2008-003824, BPAI, (Non-Precedential) (2009).

Claim 57 recites “a metadata for providing a package” comprising a “content reference identifier” and “an instance metadata identifier”. This is rejected under two separate grounds under 35 USC 101. The first ground is that it comprises non-functional descriptive material, as under its broadest reasonable interpretation, “metadata” is merely “data about data” and does not provide any functional relationship to the system. (The rationale for describing the present “metadata” as non-functional descriptive material is that the “metadata”, although storing data that indirectly determines the functions the system is to perform, is not directly responsible for carrying out the functionality of the system, as the controller software/hardware on either end of the transmitter/receiver is what actually provides system functionality by processing the metadata and acting in accordance with its contents.) (It is suggested that in order to overcome this rejection, the metadata be claimed along with computer software embedded on a non-transitory computer readable medium for processing the metadata content and acting in accordance with its contents.)

In the alternative, assuming *arguendo*, that the metadata comprises functional descriptive material, the metadata is rejected as being directed to software per se, as it

comprises software instructions and information for controlling the processes of other software. Therefore, at best, the "metadata for providing a package" recited in claim 57 is directed to software per se and is non-statutory subject matter.

Claims 58-64 depend from claim 57. Therefore, claims 58-64 are rejected under 35 USC 101 as incorporating the rejection of claim 57 by dependency.

Specification

7. The amendment filed 12 May 2008 is objected to under 35 U.S.C. 132(a) because it introduces new matter into the disclosure. 35 U.S.C. 132(a) states that no amendment shall introduce new matter into the disclosure of the invention. The added material which is not supported by the original disclosure is as follows: the use of the instance metadata identifier for identifying the content reference identifier.

Applicant is required to cancel the new matter in the reply to this Office Action.

Claim Rejections - 35 USC § 103

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

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1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

10. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

11. **Claims 17-24, 28-35, 39-46, 48-55 and 57-64** are rejected under 35 U.S.C. 103(a) as being unpatentable over *Gonno I*, et al. (Y. Gonno, F. Nishio, T. Tsunoda, Y. Yamagishi, White Paper on Integrated Broadband Environment for Personalized TV Experience (IBEX) - Preliminary Edition, 2001, Pages 1-4) in view of Lee et al. (H. Lee, J. Kim, K. Kang and J. Kim, Package and Component Schema using MPEG-21 DID, Proposal for the TV Anytime Forum, January 2004, Pages 1-16).

Regarding claims 17 and 28, *Gonno I* discloses a method and apparatus for providing a package which is a set of components to a user terminal, comprising the steps of:

- a. A generating unit for generating metadata and generating metadata including a content reference identifier (CRID) for identifying the components and an instance metadata identifier (IMI) (Page 64, Sections 3.1.1, 3.1.2, Pages 65-66, Sections 4.3,

5.1). (The system of *Gonno I* discloses a system for media and metadata distribution where each piece of "content" [i.e. program - See Section 3.1, Page 64] is associated with a CRID for identifying the piece of content [Page 64, Section 3.1.1]. Each program/CRID may then have multiple "media instances" of the particular content, such as instances at different times, with different codings or from different sources [See Pages 64, Sections 3.1.1 and 3.1.2][See also Pages 65-66, Section 5.1, 5.2, 5.3.1 and 5.3.2 - Showing that each of the multiple "media instance" referenced in section 3.1.2 is associated with content metadata [Page 66, Section 5.3.1] and may comprise the same content with a different media type/mime type/encoding/"bit expression" [See Section 5.3.1]]. The generated metadata for each of the media instances/component instances is distinguished using a media instance identifier [i.e. instance metadata identifier] [Section 5.1 "Metadata Description" - "Each description will be associated with contents or other resources by referencing there identifiers, e.g. content reference identifiers or *media instance identifier*."]. Finally, the generated metadata is replicated/transmitted to the browser/user terminal [Page 66, Section 5.2].)

b. A transmitting unit for transmitting the metadata to the user terminal (Page 66, Section 5.2, See (a), Supra).

Gonno I fails to disclose the use of packaging or an instance metadata identifier used for identifying the content reference identifier. In the same field of endeavor, *Lee* discloses the use of packaging or an instance metadata identifier used for identifying the content reference identifier (Page 7, The Table, Lowest Row, "Resource" is associated with a "ID & CRID", Page 10, Bottom Box, The ID Attributes are associated with both an "id" and a "crd"). (The system of

Lee discloses encoding ID and CRID information in a package description of metadata [See Pages 4-6, Particularly Fig. 4 and Pages 6-7, Sections 4.1-4.2]. Also included in the package are references to multiple different format types for a particular object [Pages 9-12] [See Page 9, The figure - Showing multiple instances of the same format] [See also Page 10 - Showing the conversion of the MPEG-21 information to the TV-Anytime Format including the mime type/bit expression as the ID]. The system of *Lee* further discloses the linking of an ID and a CRID in metadata package, therefore the ID [i.e. instance metadata identifier] may be used to identify the associated content reference identifier [Page 10, The box at the bottom of page showing ID_ATTRS links the ID and CRID.]

Therefore, since *Lee* suggests packaging instance metadata in a Package Description utilizing a linked CRID and ID and *Gonno I* discloses a system which utilizes a CRID and a separate metadata instance identifier to uniquely identify media items, it would have been obvious to a person of ordinary skill in the art at the time of the invention to combine the instance packaging of *Lee* with the system of *Gonno I* by packaging the CRID and separate instance identifier of *Gonno I* in a single package description, as taught by *Lee* and by encoding and transmitting the package to the user, as taught by *Gonno I*. The motive to combine is to allow the unique representation of media instances with the same CRID by using an additional instance identifier that is linked to the common CRID.

Regarding claims 18 and 29, *Gonno I* discloses a package providing method and apparatus wherein the instance metadata identifier identifies locations of the components (Page 64, Section 3.1.2). (Each of the media instances may be associated with a particular path [i.e. URL, URI, exc.] for accessing the streamed data [See Page 64, Section 3.1.2] and with a media instance identifier [i.e. instance metadata identifier] [Section 5.1 "Metadata Description" - "Each description will be associated with contents or other resources by referencing there identifiers,

e.g. content reference identifiers or *media instance identifier*.”]. The media instance identifier is used to identify a particular content media instance, [Section 5.1 “Metadata Description”] which in turn contains attributes of the particular content media instance, such as location, time and media type [Page 66, Section 5.3.1]. Therefore, the media instance identifier is used to identify the location of the components of the content media instance.)

Regarding claims 19 and 30, *Gonno I* discloses a package providing method and apparatus wherein the instance metadata identifier identifies different bit expression instances of the components (Page 65, Sections 5.3.1 and 5.3.2). (The system of *Gonno* further discloses that the instance metadata identifier associated with a content media instance includes information concerning the “media type” [Section 5.3.1]. The media type is referenced to the MIME type of the content, represents the encoding/format of the media [Page 66, Section 5.1, “Media Instance”- “...certain media resources must be allocated, which will be characterized by the media type, such as MIME type...Each media instance associated with a media type will be stored in the media database.”] and is analogous to the “bit expressions” of the application [See, for example, Applicant’s Specification, Page 3, Lines 5-33 - Showing bit expressions to be mime type descriptors of “Audio_Wav” and “Audio_MP3”).)

Regarding claims 20 and 31, *Gonno I* discloses a package providing method and apparatus wherein the bit expression is a coding format (Page 65, Sections 5.3.1 and 5.3.2). (The system of *Gonno* further discloses that the instance metadata identifier associated with a content media instance includes information concerning the “media type” [Section 5.3.1]. The media type is referenced to the MIME type of the content, represents the encoding/format of the media [Page 66, Section 5.1, “Media Instance”- “...certain media resources must be allocated, which will be characterized by the media type, such as MIME type...Each media instance associated with a media type will be stored in the media database.”] and is analogous to the “bit

expressions" of the application [See, for example, Applicant's Specification, Page 3, Lines 5-33 - Showing bit expressions to be mime type descriptors of "Audio_Wav" and "Audio_MP3"].

Regarding claims 21 and 32, *Gonno I* discloses a package providing method and apparatus wherein the components are a plurality of components having identical contents and the content reference identifier is identical to the plurality of components (Page 64, Sections 3.1.1, 3.1.2, Pages 65-66, Sections 4.3, 5.1). (The system of *Gonno I* discloses a system for media and metadata distribution where each piece of "content" [i.e. program - See Section 3.1, Page 64] is associated with a CRID for identifying the piece of content [Page 64, Section 3.1.1]. The content identifier may then be resolved into a particular "media instance" [Page 64, Section 3.1.1, "...CRIDs may be resolved into media locations of actual media instances to browse contents...] among multiple media instances for transmitting the same program at different times or using different mime types/coding [See Pages 65-66, Section 5.1, 5.2, 5.3.1 and 5.3.2]. Each of the media instances may be associated with a particular path [i.e. URL, URI, exc.] for accessing the streamed data [See Page 64, Section 3.1.2] and with a media instance identifier [i.e. instance metadata identifier] [Section 5.1 "Metadata Description" - "Each description will be associated with contents or other resources by referencing there identifiers, e.g. content reference identifiers or *media instance identifier*."]. Therefore a single CRID is associated with multiple media instances.)

Regarding claims 22 and 33, *Gonno I* discloses a package providing method and apparatus wherein instances of the components are located in different locations (Page 64, Sections 3.1.1, 3.1.2, Pages 65-66, Sections 4.3, 5.1). (The system of *Gonno I* discloses a system for media and metadata distribution where each piece of "content" [i.e. program - See Section 3.1, Page 64] is associated with a CRID for identifying the piece of content [Page 64, Section 3.1.1]. The content identifier may then be resolved into a particular "media instance"

[Page 64, Section 3.1.1, "...CRIDs may be resolved into media locations of actual media instances to browse contents...] among multiple media instances in different locations for transmitting the same program [See Page 64, Section 3.2.1 - Showing the use of different source networks for the media instances.)

Regarding claims 23 and 34, *Gonno I* discloses a package providing method and apparatus wherein the instance metadata identifier is listed in the metadata (Fig. 3 and Page 55, Section 5.1). (The system of *Gonno I* disclose that the metadata description stores/list a references that refer to specific media instances using the media instance identifiers of each instance [i.e. instance metadata identifiers] [Fig. 3 - The Metadata Description "refer[s]_to" the media instance, Page 55, Section 5.1].)

Regarding claims 24 and 35, *Gonno I* discloses a package providing method and apparatus wherein the components are a plurality of components having identical contents and the content reference identifier is identical to the plurality of components (Page 64, Sections 3.1.1, 3.1.2, Pages 65-66, Sections 4.3, 5.1). (The system of *Gonno I* discloses a system for media and metadata distribution where each piece of "content" [i.e. program - See Section 3.1, Page 64] is associated with a CRID for identifying the piece of content [Page 64, Section 3.1.1]. The content identifier may then be resolved into a particular "media instance" [Page 64, Section 3.1.1, "...CRIDs may be resolved into media locations of actual media instances to browse contents...] among multiple media instances for transmitting the same program at different times or using different mime types/coding [See Pages 65-66, Section 5.1, 5.2, 5.3.1 and 5.3.2]. Each of the media instances may be associated with a particular path [i.e. URL, URI, exc.] for accessing the streamed data [See Page 64, Section 3.1.2] and with a media instance identifier [i.e. instance metadata identifier] [Section 5.1 "Metadata Description" - "Each description will be associated with contents or other resources by referencing there identifiers, e.g. content

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reference identifiers or *media instance identifier*."]. Therefore a single CRID is associated with multiple media instances.)

Regarding claim 39 and 48, *Gonno I* discloses a method and a user terminal for consuming a package which is a set of components, comprising the steps of:

a. A receiving unit for and the step of receiving metadata including a content reference identifier (CRID) for identifying the components and an instance metadata identifier (IMI) (Page 64, Sections 3.1.1, 3.1.2, Pages 65-66, Sections 4.3, 5.1). (The system of *Gonno I* discloses a system for media and metadata distribution where each piece of "content" [i.e. program - See Section 3.1, Page 64] is associated with a CRID for identifying the piece of content [Page 64, Section 3.1.1]. Each program/CRID may then have multiple "media instances" of the particular content, such as instances at different times, with different codings or from different sources [See Pages 64, Sections 3.1.1 and 3.1.2][See also Pages 65-66, Section 5.1, 5.2, 5.3.1 and 5.3.2 - Showing that each of the multiple "media instance" referenced in section 3.1.2 is associated with content metadata [Page 66, Section 5.3.1] and may comprise the same content with a different media type/mime type/encoding/"bit expression" [See Section 5.3.1]]. The generated metadata for each of the media instances/component instances is distinguished using a media instance identifier [i.e. instance metadata identifier] [Section 5.1 "Metadata Description" - "Each description will be associated with contents or other resources by referencing there identifiers, e.g. content reference identifiers or *media instance identifier*."]. Finally, the generated metadata is replicated/transmitted to the browser/user terminal [Page 66, Section 5.2].)

b. An acquiring unit for and the step of acquiring the components using the content reference identifier and the instance metadata identifier of the metadata (Page 66,

Section 5.2 and 5.3.2). The system of *Gonno I* further discloses the replication of this metadata to the end user browser/terminal [See Section 5.2 - Showing the replication of the metadata to the user terminal]. When the end user browser/user terminal receives the data via the receiving unit, it then proceeds to decode the metadata and uses the decoded metadata description to identify a content media instance using the CRID and instance metadata identifier of interest [Page 65, Fig. 3 and the "Metadata Description" portion of Section 5.2 - Showing the use of the Metadata Description to locate the media instance via the media instance identifier] [Page 66, Section 5.3.2]. The content media instance is then acquired by the user browser/terminal using the location of the instance stored in the content metadata of the content instance [Page 66, Section 5.3.1].)

Gonno I fails to disclose the use of packaging or an instance metadata identifier used for identifying the content reference identifier. In the same field of endeavor, *Lee* discloses the use of packaging or an instance metadata identifier used for identifying the content reference identifier (Page 7, The Table, Lowest Row, "Resource" is associated with a "ID & CRID", Page 10, Bottom Box, The ID Attributes are associated with both an "id" and a "crid"). (The system of *Lee* discloses encoding ID and CRID information in a package description of metadata [See Pages 4-6, Particularly Fig. 4 and Pages 6-7, Sections 4.1-4.2]. Also included in the package are references to multiple different format types for a particular object [Pages 9-12] [See Page 9, The figure - Showing multiple instances of the same format] [See also Page 10 - Showing the conversion of the MPEG-21 information to the TV-Anytime Format including the mime type/bit expression as the ID]. The system of *Lee* further discloses the linking of an ID and a CRID in metadata package, therefore the ID [i.e. instance metadata identifier] may be used to identify

the associated content reference identifier [Page 10, The box at the bottom of page showing ID_ATTRS links the ID and CRID].)

Therefore, since *Lee* suggests packaging instance metadata in a Package Description utilizing a linked CRID and ID and *Gonno I* discloses a system which utilizes a CRID and a separate metadata instance identifier to uniquely identify media items, it would have been obvious to a person of ordinary skill in the art at the time of the invention to combine the instance packaging of *Lee* with the system of *Gonno I* by packaging the CRID and separate instance identifier of *Gonno I* in a single package description, as taught by *Lee* and by encoding and transmitting the package to the user, as taught by *Gonno I*. The motive to combine is to allow the unique representation of media instances with the same CRID by using an additional instance identifier that is linked to the common CRID.

Regarding claims 40 and 49, *Gonno I* discloses a package consuming method and a user terminal wherein instance metadata identifier identifies locations of the components (Page 64, Section 3.1.2). (Each of the media instances may be associated with a particular path [i.e. URL, URI, exc.] for accessing the streamed data [See Page 64, Section 3.1.2] and with a media instance identifier [i.e. instance metadata identifier] [Section 5.1 "Metadata Description" - "Each description will be associated with contents or other resources by referencing there identifiers, e.g. content reference identifiers or *media instance identifier*."]. The media instance identifier is used to identify a particular content media instance, [Section 5.1 "Metadata Description"] which in turn contains attributes of the particular content media instance, such as location, time and media type [Page 66, Section 5.3.1]. Therefore, the media instance identifier is used to identify the location of the components of the content media instance.)

Regarding claims 41 and 50, *Gonno I* discloses a package consuming method and a user terminal wherein the instance metadata identifier identifies different bit expression

instances of the components (Page 65, Sections 5.3.1 and 5.3.2). (The system of *Gonno* further discloses that the instance metadata identifier associated with a content media instance includes information concerning the "media type" [Section 5.3.1]. The media type is referenced to the MIME type of the content, represents the encoding/format of the media [Page 66, Section 5.1, "Media Instance"- "...certain media resources must be allocated, which will be characterized by the media type, such as MIME type...Each media instance associated with a media type will be stored in the media database."] and is analogous to the "bit expressions" of the application [See, for example, Applicant's Specification, Page 3, Lines 5-33 - Showing bit expressions to be mime type descriptors of "Audio_Wav" and "Audio_MP3"].)

Regarding claims 42 and 51, *Gonno I* discloses a package consuming method and a user terminal wherein the bit expression is a coding format (Page 65, Sections 5.3.1 and 5.3.2). (The system of *Gonno* further discloses that the instance metadata identifier associated with a content media instance includes information concerning the "media type" [Section 5.3.1]. The media type is referenced to the MIME type of the content, represents the encoding/format of the media [Page 66, Section 5.1, "Media Instance"- "...certain media resources must be allocated, which will be characterized by the media type, such as MIME type...Each media instance associated with a media type will be stored in the media database."] and is analogous to the "bit expressions" of the application [See, for example, Applicant's Specification, Page 3, Lines 5-33 - Showing bit expressions to be mime type descriptors of "Audio_Wav" and "Audio_MP3"].

Regarding claims 43 and 52, *Gonno I* discloses a package consuming method and a user terminal wherein components are a plurality of components having identical contents and the content reference identifier is identical to the plurality of components (Page 64, Sections 3.1.1, 3.1.2, Pages 65-66, Sections 4.3, 5.1). (The system of *Gonno I* discloses a system for media and metadata distribution where each piece of "content" [i.e. program - See Section 3.1,

Page 64] is associated with a CRID for identifying the piece of content [Page 64, Section 3.1.1]. The content identifier may then be resolved into a particular "media instance" [Page 64, Section 3.1.1, "...CRIDs may be resolved into media locations of actual media instances to browse contents..."] among multiple media instances for transmitting the same program at different times or using different mime types/coding [See Pages 65-66, Section 5.1, 5.2, 5.3.1 and 5.3.2]. Each of the media instances may be associated with a particular path [i.e. URL, URI, exc.] for accessing the streamed data [See Page 64, Section 3.1.2] and with a media instance identifier [i.e. instance metadata identifier] [Section 5.1 "Metadata Description" - "Each description will be associated with contents or other resources by referencing there identifiers, e.g. content reference identifiers or *media instance identifier*."]. Therefore a single CRID is associated with multiple media instances.)

Regarding claims 44 and 53, *Gonno I* discloses a package consuming method and a user terminal wherein instances of the components are located in different locations (Page 64, Sections 3.1.1, 3.1.2, Pages 65-66, Sections 4.3, 5.1). (The system of *Gonno I* discloses a system for media and metadata distribution where each piece of "content" [i.e. program - See Section 3.1, Page 64] is associated with a CRID for identifying the piece of content [Page 64, Section 3.1.1]. The content identifier may then be resolved into a particular "media instance" [Page 64, Section 3.1.1, "...CRIDs may be resolved into media locations of actual media instances to browse contents..."] among multiple media instances in different locations for transmitting the same program [See Page 64, Section 3.2.1 - Showing the use of different source networks for the media instances.)

Regarding claims 45 and 54, *Gonno I* discloses a package consuming method and a user terminal wherein the instance metadata identifier is listed in the metadata (Fig. 3 and Page 55, Section 5.1). (The system of *Gonno I* disclose that the metadata description stores/list a

references that refer to specific media instances using the media instance identifiers of each instance [i.e. instance metadata identifiers] [Fig. 3 - The Metadata Description "refer[s]_to" the media instance, Page 55, Section 5.1].)

Regarding claims 46 and 55, *Gonno I* discloses a package consuming method and a user terminal wherein the components are a plurality of components having identical contents and the content reference identifier is identical to the plurality of components (Page 64, Sections 3.1.1, 3.1.2, Pages 65-66, Sections 4.3, 5.1). (The system of *Gonno I* discloses a system for media and metadata distribution where each piece of "content" [i.e. program - See Section 3.1, Page 64] is associated with a CRID for identifying the piece of content [Page 64, Section 3.1.1]. The content identifier may then be resolved into a particular "media instance" [Page 64, Section 3.1.1, "...CRIDs may be resolved into media locations of actual media instances to browse contents..."] among multiple media instances for transmitting the same program at different times or using different mime types/coding [See Pages 65-66, Section 5.1, 5.2, 5.3.1 and 5.3.2]. Each of the media instances may be associated with a particular path [i.e. URL, URI, exc.] for accessing the streamed data [See Page 64, Section 3.1.2] and with a media instance identifier [i.e. instance metadata identifier] [Section 5.1 "Metadata Description" - "Each description will be associated with contents or other resources by referencing there identifiers, e.g. content reference identifiers or *media instance identifier*."]. Therefore a single CRID is associated with multiple media instances.)

Regarding claim 57, *Gonno I* discloses a metadata for providing a package which is a set of components, comprising:

- a. A content reference identifier (CRID) for Identifying the components (Page 64, Sections 3.1.1, 3.1.2, Pages 65-66, Sections 4.3, 5.1). (The system of *Gonno I* discloses

a system for media and metadata distribution where each piece of "content" [i.e. program - See Section 3.1, Page 64] is associated with a CRID for identifying the piece of content [Page 64, Section 3.1.1]. Each program/CRID may then have multiple "media instances" of the particular content, such as instances at different times, with different codings or from different sources [See Pages 64, Sections 3.1.1 and 3.1.2][See also Pages 65-66, Section 5.1, 5.2, 5.3.1 and 5.3.2 - Showing that each of the multiple "media instance" referenced in section 3.1.2 is associated with content metadata [Page 66, Section 5.3.1] and may comprise the same content with a different media type/mime type/encoding/"bit expression" [See Section 5.3.1]]. The generated metadata for each of the media instances/component instances is distinguished using a media instance identifier [i.e. instance metadata identifier] [Section 5.1 "Metadata Description" - "Each description will be associated with contents or other resources by referencing there identifiers, e.g. content reference identifiers or *media instance identifier*."]. Finally, the generated metadata is replicated/transmitted to the browser/user terminal [Page 66, Section 5.2].)

b. An instance metadata identifier (IMI) for identifying the content reference identifier (Page 66, Section 5.2, See (a), *Supra*).

Gonno I fails to disclose the use of packaging or an instance metadata identifier used for identifying the content reference identifier. In the same field of endeavor, *Lee* discloses the use of packaging or an instance metadata identifier used for identifying the content reference identifier (Page 7, The Table, Lowest Row, "Resource" is associated with a "ID & CRID", Page 10, Bottom Box, The ID Attributes are associated with both an "id" and a "crd"). (The system of

Lee discloses encoding ID and CRID information in a package description of metadata [See Pages 4-6, Particularly Fig. 4 and Pages 6-7, Sections 4.1-4.2]. Also included in the package are references to multiple different format types for a particular object [Pages 9-12] [See Page 9, The figure - Showing multiple instances of the same format] [See also Page 10 - Showing the conversion of the MPEG-21 information to the TV-Anytime Format including the mime type/bit expression as the ID]. The system of *Lee* further discloses the linking of an ID and a CRID in metadata package, therefore the ID [i.e. instance metadata identifier] may be used to identify the associated content reference identifier [Page 10, The box at the bottom of page showing ID_ATTRS links the ID and CRID.]

Therefore, since *Lee* suggests packaging instance metadata in a Package Description utilizing a linked CRID and ID and *Gonno I* discloses a system which utilizes a CRID and a separate metadata instance identifier to uniquely identify media items, it would have been obvious to a person of ordinary skill in the art at the time of the invention to combine the instance packaging of *Lee* with the system of *Gonno I* by packaging the CRID and separate instance identifier of *Gonno I* in a single package description, as taught by *Lee* and by encoding and transmitting the package to the user, as taught by *Gonno I*. The motive to combine is to allow the unique representation of media instances with the same CRID by using an additional instance identifier that is linked to the common CRID.

Regarding claim 58, *Gonno I* discloses metadata wherein the instance metadata identifier identifies locations of the components (Page 64, Section 3.1.2). (Each of the media instances may be associated with a particular path [i.e. URL, URI, exc.] for accessing the streamed data [See Page 64, Section 3.1.2] and with a media instance identifier [i.e. instance metadata identifier] [Section 5.1 "Metadata Description" - "Each description will be associated with contents or other resources by referencing there identifiers, e.g. content reference

identifiers or *media instance identifier*.]. The media instance identifier is used to identify a particular content media instance, [Section 5.1 "Metadata Description"] which in turn contains attributes of the particular content media instance, such as location, time and media type [Page 66, Section 5.3.1]. Therefore, the media instance identifier is used to identify the location of the components of the content media instance.)

Regarding claim 59, *Gonno I* discloses metadata wherein the instance metadata identifier identifies different bit expression instances of the components (Page 65, Sections 5.3.1 and 5.3.2). (The system of *Gonno* further discloses that the instance metadata identifier associated with a content media instance includes information concerning the "media type" [Section 5.3.1]. The media type is referenced to the MIME type of the content, represents the encoding/format of the media [Page 66, Section 5.1, "Media Instance"- "...certain media resources must be allocated, which will be characterized by the media type, such as MIME type...Each media instance associated with a media type will be stored in the media database."] and is analogous to the "bit expressions" of the application [See, for example, Applicant's Specification, Page 3, Lines 5-33 - Showing bit expressions to be mime type descriptors of "Audio_Wav" and "Audio_MP3"].)

Regarding claims 60, *Gonno I* discloses metadata wherein the bit expression is a coding format (Page 65, Sections 5.3.1 and 5.3.2). (The system of *Gonno* further discloses that the instance metadata identifier associated with a content media instance includes information concerning the "media type" [Section 5.3.1]. The media type is referenced to the MIME type of the content, represents the encoding/format of the media [Page 66, Section 5.1, "Media Instance"- "...certain media resources must be allocated, which will be characterized by the media type, such as MIME type...Each media instance associated with a media type will be stored in the media database."] and is analogous to the "bit expressions" of the application [See,

for example, Applicant's Specification, Page 3, Lines 5-33 - Showing bit expressions to be mime type descriptors of "Audio_Wav" and "Audio_MP3"].

Regarding claims 61, *Gonno I* discloses a metadata wherein the components are a plurality of components having identical contents and the content reference identifier is identical to the plurality of components (Page 64, Sections 3.1.1, 3.1.2, Pages 65-66, Sections 4.3, 5.1). (The system of *Gonno I* discloses a system for media and metadata distribution where each piece of "content" [i.e. program - See Section 3.1, Page 64] is associated with a CRID for identifying the piece of content [Page 64, Section 3.1.1]. The content identifier may then be resolved into a particular "media instance" [Page 64, Section 3.1.1, "...CRIDs may be resolved into media locations of actual media instances to browse contents...] among multiple media instances for transmitting the same program at different times or using different mime types/coding [See Pages 65-66, Section 5.1, 5.2, 5.3.1 and 5.3.2]. Each of the media instances may be associated with a particular path [i.e. URL, URI, exc.] for accessing the streamed data [See Page 64, Section 3.1.2] and with a media instance identifier [i.e. instance metadata identifier] [Section 5.1 "Metadata Description" - "Each description will be associated with contents or other resources by referencing there identifiers, e.g. content reference identifiers or *media instance identifier*."]. Therefore a single CRID is associated with multiple media instances.)

Regarding claims 62, *Gonno I* discloses metadata wherein instances of the components are located in different locations (Page 64, Sections 3.1.1, 3.1.2, Pages 65-66, Sections 4.3, 5.1). (The system of *Gonno I* discloses a system for media and metadata distribution where each piece of "content" [i.e. program - See Section 3.1, Page 64] is associated with a CRID for identifying the piece of content [Page 64, Section 3.1.1]. The content identifier may then be resolved into a particular "media instance" [Page 64, Section 3.1.1,

"...CRIDs may be resolved into media locations of actual media instances to browse contents..." among multiple media instances in different locations for transmitting the same program [See Page 64, Section 3.2.1 - Showing the use of different source networks for the media instances.)

Regarding claims 63, *Gonno I* discloses metadata wherein the instance metadata identifier is listed in the metadata (Fig. 3 and Page 55, Section 5.1). (The system of *Gonno I* disclose that the metadata description stores/list a references that refer to specific media instances using the media instance identifiers of each instance [i.e. instance metadata identifiers] [Fig. 3 - The Metadata Description "refer[s]_to" the media instance, Page 55, Section 5.1].)

Regarding claims 64, *Gonno I* discloses metadata wherein the components are a plurality of components having identical contents and the content reference identifier is identical to the plurality of components (Page 64, Sections 3.1.1, 3.1.2, Pages 65-66, Sections 4.3, 5.1). (The system of *Gonno I* discloses a system for media and metadata distribution where each piece of "content" [i.e. program - See Section 3.1, Page 64] is associated with a CRID for identifying the piece of content [Page 64, Section 3.1.1]. The content identifier may then be resolved into a particular "media instance" [Page 64, Section 3.1.1, "...CRIDs may be resolved into media locations of actual media instances to browse contents..." among multiple media instances for transmitting the same program at different times or using different mime types/coding [See Pages 65-66, Section 5.1, 5.2, 5.3.1 and 5.3.2]. Each of the media instances may be associated with a particular path [i.e. URL, URI, exc.] for accessing the streamed data [See Page 64, Section 3.1.2] and with a media instance identifier [i.e. instance metadata identifier] [Section 5.1 "Metadata Description" - "Each description will be associated with contents or other resources by referencing there identifiers, e.g. content reference identifiers or

media instance identifier."]. Therefore a single CRID is associated with multiple media instances.)

12. **Claims 25, 26, 36 and 37** are rejected under 35 U.S.C. 103(a) as being unpatentable over *Gonno I*, et al. (Y. Gonno, F. Nishio, T. Tsunoda, Y. Yamagishi, White Paper on Integrated Broadband Environment for Personalized TV Experience (IBEX) - Preliminary Edition, 2001, Pages 1-4) in view of Lee et al. (H. Lee, J. Kim, K. Kang and J. Kim, Package and Component Schema using MPEG-21 DID, Proposal for the TV Anytime Forum, January 2004, Pages 1-16) as applied to claims XXX and further in view of The TV Anytime Specification on Metadata Part B ("The Specification, Part B") (Author Unknown, The TV-Anytime Forum, Specification S-3 on Metadata - Part B: System Aspects in Unidirectional Environments, 15 August 2003, Pages 1-74).

Regarding claims 25 and 36 *Gonno I* as modified by *Lee* fails to disclose a package providing method and apparatus further comprising the step of fragmenting the generated package metadata to a plurality of fragmented metadata for independently transmitting, processing and updating the fragmented metadata. In the same field of endeavor, The Specification, Part B discloses a package providing method and apparatus further comprising the step of fragmenting the generated package metadata to a plurality of fragmented metadata for independently transmitting, processing and updating the fragmented metadata (Pages 12-18, Sections 4.1-4.2, Pages 42-44). (The system of The Specification, Part B discloses the fragmentation and encapsulation of metadata for transmission in a one way or broadcast system [Pages 12-18, Sections 4.1-4.2, Pages 42-44]. To accomplish this, The Specification, Part B first fragments the data into several self consistent units of data [See Page 14, Section

4.2.1]. Each of the fragments of data is then grouped in an encapsulated "container" and transmitted to the user terminal via a unidirectional or bi-directional network [Page 14, Section 4.2.1, Particularly Fig. 3] [See also Page 42, Section 4.5.1 and Pages 45-46, Section 4.6]. Each of the individual metadata fragments is self consistent and may be updated or deleted separately from the other fragments [Page 50, Section 4.7.3].)

Therefore, since The Specification, Part B suggests the fragmentation, grouping and encapsulation of metadata, it would have been obvious to a person of ordinary skill in the art at the time of the invention to implement the fragmentation and encapsulation of The Specification, Part B into the system of *Gonno I* as modified by *Lee* by fragmenting into self consistent, individually updateable fragments and grouping and encapsulating the fragments for transmission to the user terminal, as taught by The Specification, Part B. The motive to combine is to allow for easy transport and update of the metadata.

Regarding claims 26 and 37, *Gonno I* as modified by *Lee* fails to disclose a package providing method and apparatus further comprising the step of encapsulating the encoded package metadata for grouping the encoded package metadata. In the same field of endeavor, The Specification, Part B discloses a package providing method and apparatus further comprising the step of encapsulating the encoded package metadata for grouping the encoded package metadata (Pages 12-18, Sections 4.1-4.2, Pages 42-44). (The system of The Specification, Part B discloses the fragmentation and encapsulation of metadata for transmission in a one way or broadcast system [Pages 12-18, Sections 4.1-4.2, Pages 42-44]. To accomplish this, The Specification, Part B first fragments the data into several self consistent units of data [See Page 14, Section 4.2.1]. Each of the fragments of data is then grouped in an encapsulated "container" and transmitted to the user terminal via a unidirectional or bi-directional network [Page 14, Section 4.2.1, Particularly Fig. 3] [See also Page 42, Section 4.5.1

and Pages 45-46, Section 4.6]. Each of the individual metadata fragments is self consistent and may be updated or deleted separately from the other fragments [Page 50, Section 4.7.3].)

Therefore, since The Specification, Part B suggests the fragmentation, grouping and encapsulation of metadata, it would have been obvious to a person of ordinary skill in the art at the time of the invention to implement the fragmentation and encapsulation of The Specification, Part B into the system of *Gonno I* as modified by *Lee* by fragmenting into self consistent, individually updateable fragments and grouping and encapsulating the fragments for transmission to the user terminal, as taught by The Specification, Part B. The motive to combine is to allow for easy transport and update of the metadata.

13. **Claims 27, 38, 47 and 56** are rejected under 35 U.S.C. 103(a) as being unpatentable over *Gonno I*, et al. (Y. Gonno, F. Nishio, T. Tsunoda, Y. Yamagishi, White Paper on Integrated Broadband Environment for Personalized TV Experience (IBEX) - Preliminary Edition, 2001, Pages 1-4) in view of Lee et al. (H. Lee, J. Kim, K. Kang and J. Kim, Package and Component Schema using MPEG-21 DID, Proposal for the TV Anytime Forum, January 2004, Pages 1-16) and The TV Anytime Specification on Metadata Part B ("The Specification, Part B") (Author Unknown, The TV-Anytime Forum, Specification S-3 on Metadata - Part B: System Aspects in Unidirectional Environments, 15 August 2003, Pages 1-74) as applied to claims XXX and further in view of *Gonno II*, et al. (Y. Gonno, F. Nishio, T. Tsunoda, Y. Yamagishi, Integrated Broadband Environment for Personalized TV Experience (IBEX): Implementation Study and Practice, Proceedings of the Ninth ACM International Conference on Multimedia, 2001, Pages 546-548)

Regarding claims 27 and 38, *Gonno I* fails to disclose a package providing method and apparatus the encoded package metadata is transmitted by using a one-way broadcasting system or two-way system through an internet protocol (IP) network. In the same field of endeavor, *Gonno II* discloses a package providing method and apparatus the encoded package metadata is transmitted by using a one-way broadcasting system or two-way system through an internet protocol (IP) network (See Section 1, Page 547 - "As a practice of implementation, we are investigating not only IP based uni/bi-directional transport for the use on the Internet but also MPEG-2 based uni-directional transport for the use on digital broadcasting networks.")

Therefore, since *Gonno II* suggests the use of unidirectional/bidirectional IP networks for the transport of the metadata, it would have been obvious to a person of ordinary skill in the art at the time of the invention to combine the IP transport of *Gonno I* with the system of *Gonno II* by using an IP network to transport the metadata. The motive to combine is to improve system deployability by using a widely known transport protocol to distribute the data.

Regarding claims 47 and 56, *Gonno I* fails to disclose a package consuming method and a user terminal wherein the encoded package metadata is transmitted by using a one-way broadcasting system or two-way system through an internet protocol (IP) network. In the same field of endeavor, *Gonno II* discloses package consuming method and a user terminal wherein the encoded package metadata is transmitted by using a one-way broadcasting system or two-way system through an internet protocol (IP) network (See Section 1, Page 547 - "As a practice of implementation, we are investigating not only IP based uni/bi-directional transport for the use on the Internet but also MPEG-2 based uni-directional transport for the use on digital broadcasting networks.")

Therefore, since *Gonno II* suggests the use of unidirectional/bidirectional IP networks for the transport of the metadata, it would have been obvious to a person of ordinary skill in the art at the time of the invention to combine the IP transport of *Gonno I* with the system of *Gonno II* by using an IP network to transport the metadata. The motive to combine is to improve system deployability by using a widely known transport protocol to distribute the data.

Prior Art Made of Record but not Relied Upon

14. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure:

a. *Swart*, et al (US Pre Grant Publication No. 2003/0028890 A1) - Disclosing the adaptation of content for a user based on the capabilities of the user terminal (See For Example, Paragraphs 0082, 0085).

b. *Durand*, et al. (G. Durand, G. Kazai, A Metadata Model for Supporting Scalable Interactive TV Services, The 11th International MultiMedia Modeling Conference, 2005, Pages 12-14) - This reference has a bad date, but discloses the making of particular media instances and coding rates within the TV-Anytime and MPEG-7 Metadata Schemas.

c. *Kazai*, et al. (G. Kazai, M. Lalmas, M. Bourguet, Using Metadata to Provide Scalable Broadcast and Internet Content and Services, WIAMIS Workshop, 2003, Pages 487-492) - Disclosing the adaptation of content to the preferences of a user and the

capabilities of a user terminal based on types of available content indicated via metadata identifiers.

d. Lee II et al. (H. Lee, J. Kim, K. Kang and J. Kim, A Data Model of the Package: Composition of Components for Targeting and Synchronization, Proposal for the TV Anytime Forum, November 2003, Pages 1-13) - Disclosing a TV-Anytime data Targeting System.

e. Lee III, et al. (H. Lee, J. Kim, K. Kang and J. Kim, Scene Description based Content Synchronization for Personal Program Service, January 2003, Pages 1-9) - Disclosing a TV-Anytime data Targeting System for targeting data to user device capabilities.

f. Lee IV, et al. (H. Lee, J. Kim, K. Kang and J. Kim, Consideration on TV-Anytime Metadata Extension for a New Content Type, July 2003, Pages 1-3) - Disclosing a TV-Anytime data Targeting System for targeting data to user device capabilities.

g. Lee V, et al. (H. Lee, J. Kim, K. Kang and J. Kim, Metadata Structure for the Component & Package: Targeting of the TV-Anytime Phase Two, July 2003, Pages 1-3) - Disclosing a TV-Anytime data Targeting System for targeting data to user device capabilities.

h. *Durand II*, et al. (G. Durand, C. Thienot, Presentation of the SAVANT IST Project, 16 Jan 2004, TV-Anytime Forum, Meeting 26, Pages 1-5) - Disclosing the association of multiple codings of the same content with a single CRID).

i. The TV Anytime Specification on Metadata Part A ("The Specification, Part A") (Author Unknown, The TV-Anytime Forum, Specification S-3 on Metadata - Part A: Metadata Schemas, 15 August 2003, Pages 1-163) - Disclosing a great deal of background information on the arrangement, storage and transport of metadata.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Christopher Crutchfield whose telephone number is (571) 270-3989. The examiner can normally be reached on Monday through Friday 8:00 AM to 5:00 PM EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Daniel Ryman can be reached on (571) 272-3152. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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Examiner, Art Unit 2466
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